Climate Policy on Agriculture

Advice 5: Climate Crisis Policy Team (KBT)

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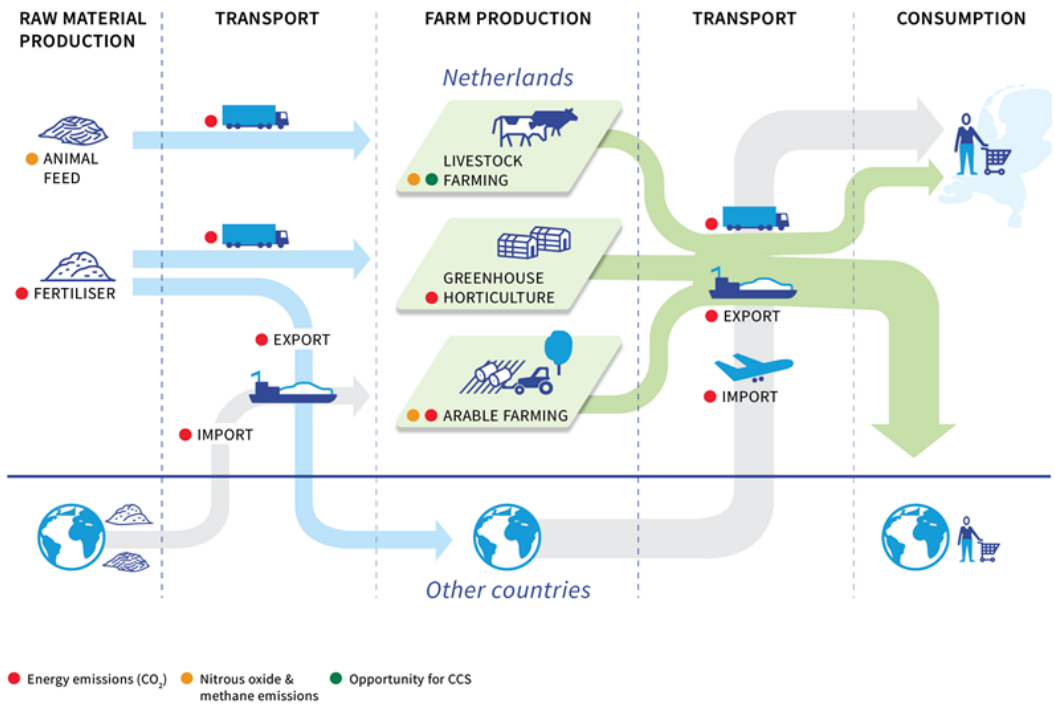
Summary

Dutch agriculture (livestock, arable, greenhouse horticulture) impacts nature and the environment in a multitude of ways. Over the past few decades the sector has taken a wide variety of steps to reduce its environmental footprint and per kilogram product it now has the lowest CO_2 emissions worldwide. It still has an impact, though, contributing to climate change and biodiversity decline, both in the Netherlands and elsewhere in the world, via imported fodder. In recent years, phosphate and nitrate pollution have been causing serious problems. While this advice focuses on climate issues, because of the interconnections between the various environmental issues, the strategy proposed also addresses these other environmental themes.

Figure 1 - Dutch agriculture as an element of the international food chain (simplified)



Although technological innovation has always played a prominent role in Dutch agriculture, there is currently no expectation that technical measures will on their own suffice to achieve the necessary reduction in greenhouse gas emissions. Today, it seems clear that more fundamental changes are needed in the farm and food system, at various scale levels.

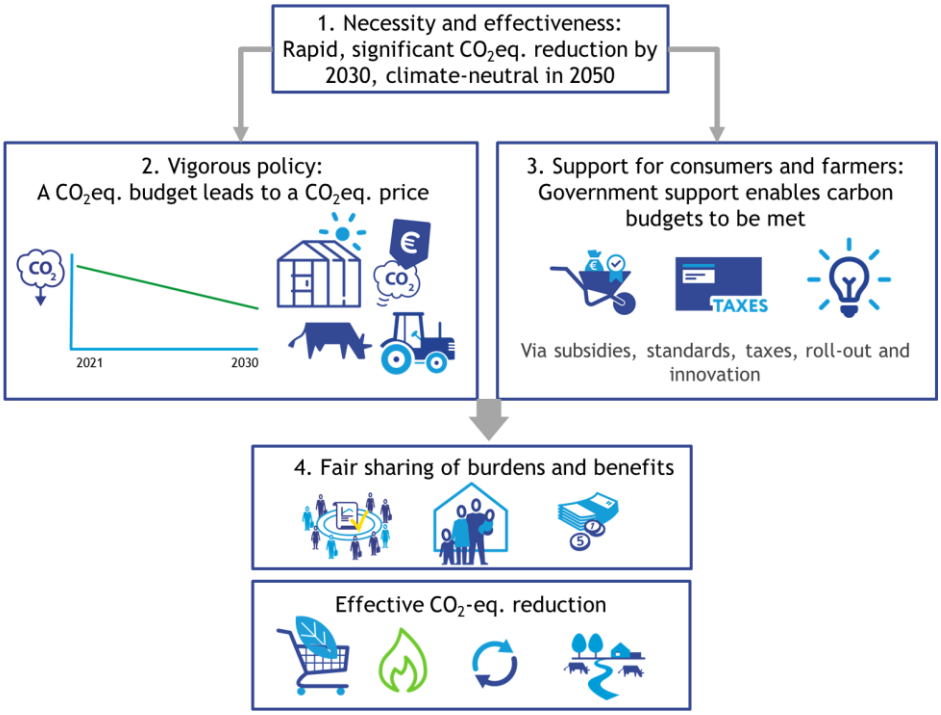
To be effective, policies to this end need to target both producers and consumers, all the more so because of the relatively large export and import volumes concerned (cf. Figure 1):

- Production. If climate targets and other environmental standards and goals are to be secured, farming practices will have to change. In many parts of the Netherlands a reduction in livestock numbers seems unavoidable when the sum total of environmental issues is considered. Moving forward, there will need to be a shift in focus from exclusively food production to a combination with (paid) delivery of other services to society, such as carbon capture, energy supply, landscape quality, nature, biodiversity, animal welfare, clean water and clean air.
- Consumption. Consumers need to be incentivised to adopt healthier and more sustainable eating habits. That is good for the environment and public health and also creates commercial opportunities for innovative vegan (i.e. plant-based) products.
- Food and feed flows: to achieve a truly robust reduction in the carbon footprint will require renegotiation of international trade agreements on food and feed flows.

What we need is a consistent, long-term policy that has integrated targets, facilitates the transition and is effectuated with a suitable variety of financial instruments. Farmers need a social license to operate as well as being in a financial position to 'green' their operations. The agro-industry, with a business model traditionally based on agricultural intensification, will also need to step up to the challenge. Policy harmonisation at EU level (at least) is essential to minimise leakage effects.

Proceeding from the climate targets, and making due allowance for good husbandry and other environmental issues, the Climate Crisis Policy Team proposes the following four-track policy:

Figure 2 - Main thrust of KBT policy advice



1. Necessity and effectiveness

If the government is serious about pursuing a climate crisis policy, the underlying reasoning needs to be clearly explained in understandable language. It is thus key that the government explain to consumers and farmers why a general 'greening' of agriculture is unavoidable, including a rapid reduction in greenhouse gas emissions. This is absolutely essential if biodiversity decline, poor water quality and rapid climate change are to be halted.

In agriculture, specifically, emissions of multiple greenhouse gases are contributing to climate change. Around half the emissions are methane from livestock farming, about a quarter nitrous oxide from arable fertiliser use and the other quarter CO_2 from greenhouse horticulture (RVO, 2016). In addition, the Netherlands is facing a 'nitrate crisis' that needs a rapid response and measures characterised by synergy and across-the-board benefits (see OntspannenNederland.nl).

2. Robust agricultural policy with regional targets

A regional strategy is required in which area-specific environmental targets for air, soil and water quality are laid down and tailor-made solutions sought. In areas where robust nitrate reductions are required, for example, a transition to extensive farming is the logical solution. In areas with lower nitrogen loads, more intensive forms of agriculture may remain feasible, backed up by selected technical measures, but always within environmental standards (OntspannenNederland.nl).

With respect to climate, a national emissions cap is the most effective route to achieving rapid and effective reduction of greenhouse gas emissions[1]. Introducing a CO_2-eq. budgeting system establishes an emissions ceiling and leads to a CO_2 price that strongly favours sustainability.

- Energy-related CO_2 emissions, i.e. farm-vehicle and greenhouse-horticulture emissions, would be covered by the carbon budget for the built environment and transport (outlined in Advices 2 and 3), with energy suppliers as the parties needing to acquire emission allowances (for easy monitoring).
- For the other greenhouse gases there are already systems in place for monitoring livestock and arable emissions, which will need to be used to allocate famers CO_2-eq. allowances. Agro-industrial companies that already keep track of supply-chain impacts can play a key role here. It is obviously of the essence that validation and enforcement are guaranteed2.
- With this system, solutions like underground CO_2 storage and afforestation can also be rewarded (carbon credits).

3. Additional policy

To support farmers in the transition to forms of agriculture within ecological constraints will require the following measures:

- remuneration for services provided to society at large, using e.g. Critical Performance Indicators
- innovation subsidies for e.g. zero-emission greenhouses
- a mandatory minimum share of vegan/vegetable produce in supermarket assortments
- a tax on meat and lower VAT on fruit and vegetables in supermarkets and greengrocers.

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1 Given that the precise emissions location is irrelevant for climate impact.

2 Generally speaking, the Dutch farming sector does not have a particularly good track record when it comes to playing by the rules. Among other issues, there appears to be 10-20% fraud with respect to manure (NVWA, in press).

Besides measures on the producer side, effective policy must also target consumers. A price incentive in the form of a footprint-indexed 'meat tax'[3] can reduce demand for animal products. This benefits not only the climate and environment, but also public health, plant proteins being both healthier and more sustainable. A consumer charge also ensures producer policy does not merely shift environmental impacts to other countries, as such a charge would also be levied on imports. The KBT recommends starting off with a meat tax and a lower VAT rate for fruit and vegetables, going on to extend this to other animal and unsustainably produced foodstuffs.

4. Due attention to support and affordable food

To maintain support for these policies, it is essential that farmers and consumers will be contributing to the 'greening' of agriculture. The revenue from the CO_2-eq. budgeting system and the meat tax can be used to support farmers, make healthy and sustainably produced food cheaper and to relieve any burden on low-income groups.

[3] The external costs can be established using the External Costs Charge (ECC) system to factor in the specific footprint of the various kinds of meat, cultured meat and other meat substitutes.